

527,846

Rec'd PCTO

15 MAR 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number
WO 2004/038832 A1

(51) International Patent Classification⁷: H01M 2/10

(21) International Application Number:
PCT/KR2002/001730

(22) International Filing Date:
16 September 2002 (16.09.2002)

(25) Filing Language: Korean

(26) Publication Language: English

(71) Applicant and

(72) Inventor: LEEM, Sung-Muk [KR/KR]; No. 201, 569-19
Dungchon-Dong, Gangseo-Gu, 157-030 Seoul (KR).

(74) Agent: PARK, Hee-Seop; 503-ho, Seongji Heights III,
642-6 Yeoksam-dong, Kangnam-gu, Seoul 135-080 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW.

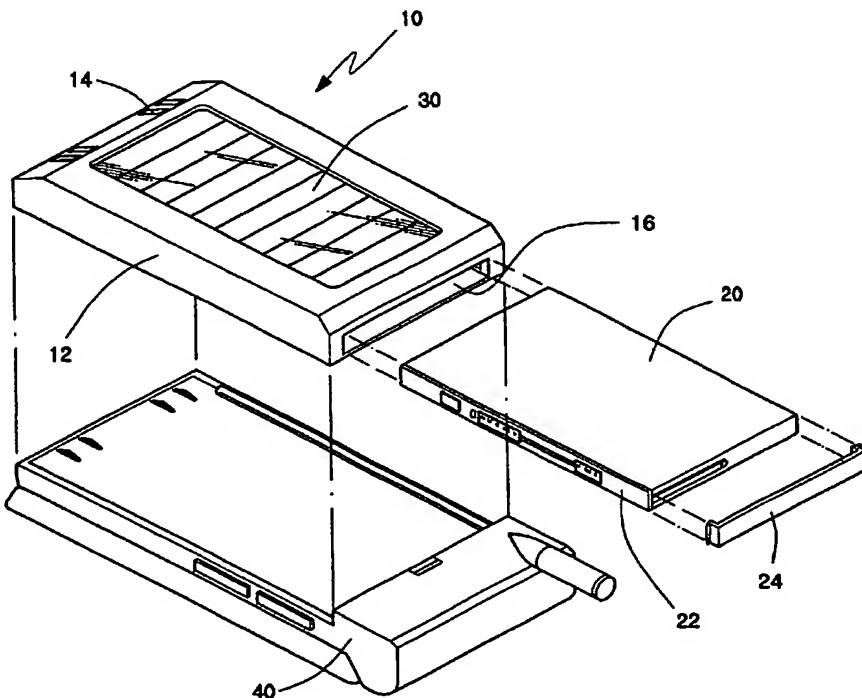
(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: BATTERY PACK EQUIPPED WITH DETACHABLE RECHARGEABLE BATTERY AND PORTABLE
ELECTRONIC DEVICE EQUIPPED WITH THE BATTERY PACK



(57) Abstract: The present invention relates to a battery pack equipped with a detachable rechargeable battery and a portable electronic device equipped with the battery pack. The battery pack (10) is continuously used by replacing the rechargeable battery (20) rather than replacing an entire battery pack (10) when the life span of the battery pack (10) adopting the charging solar cells (30) expires, and thus, the battery pack (10) must be replaced, and can quickly charge the rechargeable battery (20) through the charging solar cells (30) by preventing the rechargeable battery (20) from being overcharged. The technical construction of the present invention is characterized in that, in a battery pack equipped with a detachable rechargeable battery in which solar light is collected by the solar cells (30) and charges the rechargeable battery (20) to a battery voltage of a certain level, a battery loading hole (16) is formed in one side of a battery housing (12) in a

horizontal direction to allow the rechargeable battery (20) to be loaded therein, and the rechargeable battery (20) inserted through the battery loading hole (16) and loaded in the battery housing (12) is fastened by a battery fastener (24), and thus, is connected to power terminals (14) in a contact manner. Additionally, the battery pack (10) is constructed to be integrated with a device body (40), or to be separated from the device body (40).

WO 2004/038832 A1